

Bild 1

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*      20      *      40      *      60      *      80      *      100      *      120
T.con.TS1 : ~~~~~T~V~A~K~S~T~I~G~P~R~V~E~P~C~P~C~V~D~A~H~S~R~A~M~D~E~T~M~A~K~N~I~Y~V~L~G~R~A~N~V~T~R~C~Y~H~N~R~N~K~A~G~I~A~D~E~F~V~Z~G~T~V~N~V~G~T~K~E~N~A~T~D~ : 91
T.con.TS2 : F~R~I~P~S~L~V~E~I~D~G~V~L~I~A~T~E~D~R~Y~L~R~A~S~D~S~L~I~D~A~M~K~S~A~Q~E~F~E~X~T~S~I~E~I~K~A~L~T~D~N~E~S~R~A~V~D~E~L~A~V~K~G~D~N~L~F~I~F~V~G~R~Y~N~T~S~S~A~P~V~M~O~E~N~---G~K~D~D~V~L~L~A~K~A~K~R~K~E~S~A~S~G~V~P~S~ : 117

*      140      *      160      *      180      *      200      *      220      *      240
T.con.TS1 : S~I~S~E~R~T~A~L~K~S~L~Y~N~E~P~V~S~G~S~P~C~---T~O~F~L~E~S~A~G~C~V~V~T~S~N~E~R~I~V~L~E~V~G~A~R~N~K~A~N~R~M~V~S~I~E~S~A~D~D~G~R~E~H~G~C~E~A~G~V~E~S~E~A~A~T~E~D~G~H~I~I~S~A~S~D~G~G~C~Y~M~I~E~F~S~S~E~D~I~C~A~T~A~S~ : 208
T.con.TS2 : F~T~D~E~P~L~Y~K~H~L~L~T~S~V~G~K~I~D~E~R~S~L~I~G~Y~I~E~S~V~E~N~E~I~V~A~P~K~E~R~A~N~F~E~X~G~V~L~A~T~N~K~S~U~M~N~L~L~Y~S~N~D~G~K~T~E~S~S~T~P~A~G~E~T~A~S~H~V~W~D~G~Q~M~L~T~S~T~P~D~V~S~S~K~V~Y~L~T~E~D~I~C~T~S~E~N~S~ : 237

*      260      *      280      *      300      *      320      *      340      *      360
T.con.TS1 : M~L~N~S~T~S~R~V~E~G~N~S~P~C~R~S~G~C~G~S~S~G~F~V~V~E~G~V~E~M~D~I~H~E~K~N~L~K~S~Y~Y~R~D~R~L~Q~L~M~T~D~G~N~R~M~H~V~G~Q~V~S~E~G~D~D~N~S~A~Y~S~S~L~Y~T~P~D~G~V~L~C~L~H~E~Q~N~I~D~E~V~S~L~H~L~V~R~L~V~D~E~L~K~S~I~K~S~T~A~L~V~ : 328
T.con.TS2 : A~I~G~E~T~S~R~V~E~G~N~E~R~Y~A~N~D~E~G~C~G~S~A~I~E~V~E~G~V~E~M~D~I~H~E~K~N~L~K~S~Y~Y~R~D~R~L~Q~L~M~T~D~G~N~R~M~H~V~G~Q~V~S~E~G~D~D~N~S~A~Y~S~S~L~Y~T~P~D~G~V~L~C~L~H~E~Q~N~I~D~E~V~S~L~H~L~V~R~L~V~D~E~L~K~S~I~K~S~T~A~L~V~ : 277

*      380      *      400      *      420      *      440      *      460      *      480
T.con.TS1 : W~K~A~Q~D~E~L~L~G~N~C~L~P~G~D~K~Y~D~P~G~C~D~G~I~P~T~A~G~L~A~C~L~L~V~G~L~T~E~K~T~W~P~D~A~Y~R~C~V~N~A~A~T~S~G~A~V~S~T~A~E~G~V~R~L~D~V~G~G~G~H~V~W~P~V~S~E~Q~Q~D~Q~R~Y~Y~F~T~N~S~E~F~T~L~A~V~T~V~R~E~D~E~M~P~R~G~E~L~P~L~L~G~F~V~N~R~K~G~ : 448
T.con.TS2 : ~~~~~~ :

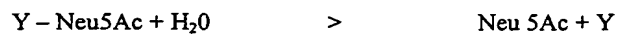
*      500      *      520
T.con.TS1 : K~V~K~I~L~K~V~S~I~S~G~V~E~W~L~L~A~Y~G~N~E~Y~N~S~T~A~A~E~P~L~D~W~N~E~S~H~Q~V~L~A~I~H~D~G~I~V~S~ : 497
T.con.TS2 : ~~~~~~ :

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Figure 2

Sialidase

Hydrolysis of donor bonded sialic acids

Sialyltransferase

Transfer of sialic acids activated with CMP to acceptor molecules

Trans-sialidase

Transfer of sialic acids from donor to acceptor molecules



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Bild 3

* 20 * 40 * 60 * 80 * 100 * 120

T.r.S :HSLAVFVPLFLMACASEPASALPGSSRVELFKRKNSTVPFEE : 44
T.cr.TS :HGKTVVGASRMPFLHFPVPLLLALCPSEPAHALPGSSRVELFKROSSKVPF : 53
T.b.br.TS : MEELHQMRNPISRLLIPTAVCHCCALTSKAAGKGTTPREAFSGGARALRKLSEKDGSVNWDGPNBKKDYKKEWERTKEKGPUGGSEKSEWFPRTGGYTLGKTKILSSAIE : 120
T.con.TS1 :
T.con.TS2 :

* 140 * 160 * 180 * 200 * 220 * 240

T.r.S : SNGTIRERVVHSPTITVNDVATAMARYSTFNEFEAVVVEVCANNDORAHSS-RAESSYMAIAIINAKLIYIAPSPKRNFBPOHRD--GSFELTVVE : 160
T.cr.TS : KGGKVTSEVVSFELIALVNDVVALANARYSTSNINSLDVAEVDDESEEDOTAHSS-RAESSYMAIAIINAKLIYIAPSPKRNFBPOHRD--GSFELTVVE : 169
T.b.br.TS : GSDKV-ERTVHSPTITVNDVVALANARYSTSNINSLDVAEVDDESEEDOTAHSS-RAESSYMAIAIINAKLIYIAPSPKRNFBPOHRD--GSFELTVVE : 239
T.con.TS1 :
T.con.TS2 : FRESLEIDEVLTITPTFELRASISLEDAHMAADQENKSEITIRAKLTDFNFAVLEVVVSDNLFIFSRRTSSAPFVQOEH--GRSDVLTFAK : 105

* 260 * 280 * 300 * 320 * 340 * 360

T.r.S : FTSARNEKTTATSSKKE--VSKPLFPREPDIILTKEKTEVFAAGSGSNLYVYVADNNGRPTTKHSEEDNPKAEERSKFCSPAVLEDEFTENNVDGN : 272
T.cr.TS : FTSARNEKTTATSSKKE--VSKPLFPREPDIILTKEKTEVFAAGSGSNLYVYVADNNGRPTTKHSEEDNPKAEERSKFCSPAVLEDEFTENNVDGN : 281
T.b.br.TS : FTSARNEKTTATSSKKE--VSKPLFPREPDIILTKEKTEVFAAGSGSNLYVYVADNNGRPTTKHSEEDNPKAEERSKFCSPAVLEDEFTENNVDGN : 356
T.con.TS1 : NVGTKNATDVSESEERTALKSTYVPSGSPS--TSDI--AGGVTSITILSARKKANREVENELADSESHGKEAGVTEHATTE--DGLISASISGCG--Q : 191
T.con.TS2 : VRZSNEGVPSVSTEDDELYLKHLITSVGKIDRELIYHSEVENELGPKTLIF--VLTNKSNNMLLSNDEATPEPSKSTETPAHTESESVSDZDHLTSETTPD--V : 220

* 380 * 400 * 420 * 440 * 460 * 480

T.r.S : -RELYTSEEDMCKVVALTELEHNTVETSNOO--D-COSEVVAHLEKRRHIF--ELLILGRMDHNNHNNORIPDGBITETETEGSVVYNDT--KMSHRIIT : 383
T.cr.TS : -RELYTSEEDMCKVVALTELEHNTVETSNOO--D-COSEVVAHLEKRRHIF--ELLILGRMDHNNHNNORIPDGBITETETEGSVVYNDT--KMSHRIIT : 392
T.b.br.TS : -RELYTSEEDMCKVVALTELEHNTVETSNOO--D-COSEVVAHLEKRRHIF--ELLILGRMDHNNHNNORIPDGBITETETEGSVVYNDT--KMSHRIIT : 476
T.con.TS1 : -RELYTSEEDMCKVVALTELEHNTVETSNOO--D-COSEVVAHLEKRRHIF--ELLILGRMDHNNHNNORIPDGBITETETEGSVVYNDT--KMSHRIIT : 304
T.con.TS2 : -RELYTSEEDMCKVVALTELEHNTVETSNOO--D-COSEVVAHLEKRRHIF--ELLILGRMDHNNHNNORIPDGBITETETEGSVVYNDT--KMSHRIIT : 277

* 500 * 520 * 540 * 560 * 580 * 600

T.r.S : NDVYEVVFVFIFIGTOLMAVVRTEEDNHASITFVVVPATFESKGCAGAAVPAALVGFSSSANGVSESVVERVDVANKERVPNGLKFNVGGE--AVFVARDTTRMOAN : 502
T.cr.TS : NDVYEVVFVFIFIGTOLMAVVRTEEDNHASITFVVVPATFESKGCAGAAVPAALVGFSSSANGVSESVVERVDVANKERVPNGLKFNVGGE--AVFVARDTTRMOAN : 511
T.b.br.TS : NDVYEVVFVFIFIGTOLMAVVRTEEDNHASITFVVVPATFESKGCAGAAVPAALVGFSSSANGVSESVVERVDVANKERVPNGLKFNVGGE--AVFVARDTTRMOAN : 592
T.con.TS1 : NDVYEVVFVFIFIGTOLMAVVRTEEDNHASITFVVVPATFESKGCAGAAVPAALVGFSSSANGVSESVVERVDVANKERVPNGLKFNVGGE--AVFVARDTTRMOAN : 419
T.con.TS2 : NDVYEVVFVFIFIGTOLMAVVRTEEDNHASITFVVVPATFESKGCAGAAVPAALVGFSSSANGVSESVVERVDVANKERVPNGLKFNVGGE--AVFVARDTTRMOAN : 419

* 620 * 640 * 660 * 680 * 700 * 720

T.r.S : YRSHVATITIDEKGTSEHLEAGLEGPGDAKLCGYDNRORFLPAAP-ASPFGSEWELHKKYHVEHMAIDROGEVYVDGOLAGSGNTVVRGA-TLPDISHEHYTGPRSKGAPTD : 620
T.cr.TS : YRSHVATITIDEKGTSEHLEAGLEGPGDAKLCGYDNRORFLPAAP-ASPFGSEWELHKKYHVEHMAIDROGEVYVDGOLAGSGNTVVRGA-TLPDISHEHYTGPRSKGAPTD : 629
T.b.br.TS : YRSHVATITIDEKGTSEHLEAGLEGPGDAKLCGYDNRORFLPAAP-ASPFGSEWELHKKYHVEHMAIDROGEVYVDGOLAGSGNTVVRGA-TLPDISHEHYTGPRSKGAPTD : 711
T.con.TS1 : YRSHVATITIDEKGTSEHLEAGLEGPGDAKLCGYDNRORFLPAAP-ASPFGSEWELHKKYHVEHMAIDROGEVYVDGOLAGSGNTVVRGA-TLPDISHEHYTGPRSKGAPTD : 497
T.con.TS2 : YRSHVATITIDEKGTSEHLEAGLEGPGDAKLCGYDNRORFLPAAP-ASPFGSEWELHKKYHVEHMAIDROGEVYVDGOLAGSGNTVVRGA-TLPDISHEHYTGPRSKGAPTD : 497

* 740 * 760 * 780 * 800 * 820 * 840

T.r.S : SRVITLIVLYNRNRSSEIRTFLSQDHEGTGDCAGCTAA : 660
T.cr.TS : SRVITLIVLYNRNRSSEIRTFLSQDHEGTGDCAGCTAA : 749
T.b.br.TS : NNVLYNRNRSSEIRTFLSQDHEGTGDCAGCTAA : 831
T.con.TS1 :
T.con.TS2 :

* 860 * 880 * 900 * 920 * 940 * 960

T.r.S : : 669
T.cr.TS : SAPADSSNAHSTPSTPADNGAHSTPSTPADNGAHSTPSTPGDNGAHSTPSTPGDSSAHSTPSTPADNGAHSTPSPADSSNAHSTPSTPGDNGAHSTPSPADSSNAHSTPSTPADSSNAHSTP : 874
T.b.br.TS : CVLECYDAHLR-TGNVAFVARWDPAPLTYGSSFPSEIRETESAP : 874
T.con.TS1 :
T.con.TS2 :

* 980 * 1000 * 1020 * 1040 * 1060 * 1080

T.r.S : : 989
T.cr.TS : SAPGDNAGHSTPSPADSSNAHSTPSPADGNGAHSTPSPADGNGAHSTPSPADGNSAHSTPSTPADSSNAHSTPSPADGNGAHSTPSPADSSNAHSTPSIPGDNAGHSTP : 989
T.b.br.TS :
T.con.TS1 :
T.con.TS2 :

* 1100 * 1120 * 1140

T.r.S : : 1060
T.cr.TS : SAPADSSNAHSTPSPADGNGAHSTPSTPADNGANGTVLILHDGAAPSAFSGGGLLCAGALLHVFVMAVTF-- : 1060
T.b.br.TS :
T.con.TS1 :
T.con.TS2 :